



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: S. RAGHUKUMAR et al.

Title: A METHOD OF ENHANCING LEVELS OF
POLYUNSATURATED FATTY ACIDS IN
THRAUSTOCHYTRID PROTISTS

Appl. No.: 10/812,389

Filing Date: 03/30/2004

Examiner: Unassigned

Art Unit: 1652

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to OG Notice dated August 5, 2003, *Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003.*

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

The relevance of the foreign-language documents is described in the present specification. An English translation of the foreign-language documents is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language documents (37 CFR §1.98 and MPEP §609). English language abstracts are attached.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

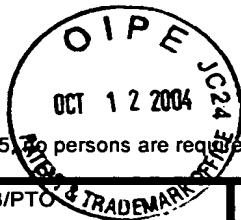
Respectfully submitted,

Date October 12, 2004

By Michael D. Kaminski

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Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Date Submitted: October 12, 2004

(use as many sheets as necessary)

Complete if Known

Application Number	10/812,389
Filing Date	03/30/2004
First Named Inventor	S. RAGHUKUMAR
Group Art Unit	1652
Examiner Name	Unassigned
Attorney Docket Number	056859-0198

Sheet 1 of 1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	5,340,594		Barclay	08-23-1994	
	A2	5,340,742		Barclay	08-23-1994	
	A3	5,908,622		Barclay	06-01-1999	
	A4	6,410,282	B1	Kumar et al.	06-25-2002	
	A5	6,451,567	B1	Barclay	09-17-2002	
	A6	6,461,839	B2	Yokochi et al.	10-08-2002	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A7	JP	10 310555	A	Nagase Sangyo KK	11-24-1998		Abst.
	A8	JP	10 310556		Agency of Ind. Sci. & Technology	11-24-1998		Abst.

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A9	PRATIMA BAJPAI et al., "Eicosapentaenoic acid (EPA) production from microorganisms: a review", <i>Journal of Biotechnology</i> , Vol. 30, (1993), pp. 161-183.	
	A10	AJAY SINGH et al., "Microbial Production of Docosahexaenoic Acid (DHA, C22:6), <i>Advances in Applied Microbiology</i> , Vol. 45, pp. 217-312.	
	A11	TOM E. LEWIS et al., "The Biotechnological Potential of Thraustochytrids", <i>Marine Biotechnology</i> , Vol. 1, (1999), pp. 580-587.	
	A12	T. YOKOCHI et al., "Optimization of docosahexaenoic acid production by <i>Schizochytrium limacinum</i> SR21", <i>Applied Microbiol Biotechnol</i> , Vol. 49, (1998), pp. 72-76.	
	A13	IWAO IIDA et al., "Improvement of Docosahexaenoic Acid Production in a Culture of <i>Thraustochytrium aureum</i> by Medium Optimization", <i>Journal of Fermentation and Bioengineering</i> , Vol. 81, No. 1, (1996), pp. 76-78.	
	A14	R. D. PODOLSKY et al., "Separating the Effects of Temperature and Viscosity on Swimming and Water Movement by Sand Dollar Larvae (<i>Dendraster Excentricus</i>)", <i>J. exp. Biol.</i> , Vol. 176, (1993), pp. 207-221.	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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